Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 through 12 (cancelled)

Claim 13 (new): Electron gun comprising:

- a sealed chamber, designed to be under a vacuum,

- a cathode placed inside the chamber and which comprises an emitting face, capable of emitting electrons,

- an anode forming a sealed window, formed facing this emitting face in one of the walls of the chamber, and capable of allowing electrons emitted by this emitting face to pass through, and

- biasing means to set up a voltage between the anode and the cathode, capable of accelerating these electrons towards the anode, the electrons thus accelerated forming a beam that passes through the anode,

this electron gun being characterised in that the anode and the emitting face each have a curvature, the curvature of the anode making it capable of resisting a pressure difference between the inside and the outside of the chamber and being designed to cooperate with the curvature of the emitting face to focus the electron beam outside the chamber.

Claim 14 (new): Electron gun according to claim 13, in which the voltage set up between the anode and the cathode is capable of applying an energy of less than or equal to 500 keV to the electrons.

Claim 15 (new): Electron gun according to claim 13, in which the emitting face of the cathode comprises an emitting layer, capable of emitting electrons when it is heated, the electron gun also comprising means for heating the cathode and therefore this emitting layer.

Claim 16 (new): Electron gun according to claim 15, in which these heating means comprise a filament capable of emitting electrons when it is heated and bombarding the cathode with these electrons, the cathode and therefore the emitting layer thus being heated by electron bombardment.

Claim 17 (new): Electron gun according to claim 13, in which the anode and the emitting face of the cathode form portions of concentric spheres or portions of coaxial cylinders of revolution.

Claim 18 (new): Electron gun according to claim 13, in which the anode comprises a thin metallic sheet, for which the thickness is less than 50 micrometers.

Claim 19 (new): Electron gun according to claim 13, in which the biasing means are designed to set up a pulsed voltage between the anode and the cathode, in order to accelerate the electrons in pulsed mode.

Claim 20 (new): Electron gun according to claim 16, in which the biasing means are designed to set up a pulsed voltage between the anode and the cathode, in order to accelerate the electrons in pulsed mode and in which the biasing means are designed to raise the cathode to a pulsed negative high voltage with respect to the anode, the anode being connected to the ground, and these biasing means comprise:

- auxiliary means capable of outputting a negative pulsed voltage, and

- a transformer capable of transforming this negative pulsed voltage into the pulsed negative high voltage,

this transformer comprising a primary winding connected to the auxiliary means and a secondary winding that comprises three electrical conductors, two of these conductors being provided for heating the filament and to bias this filament with respect to the cathode, so that electrons emitted by the filament reach this cathode, the third conductor being provided to raise the cathode to the pulsed negative high voltage.

Claim 21 (new): Electron gun according to claim 13, in which the anode is provided with cooling means.

Claim 22 (new): Electron gun according to claim 21, in which these cooling means comprise means of projecting a gas onto at least part of the periphery of the anode.

Claim 23 (new): Installation for electronic irradiation of at least one object, this installation comprising means of irradiating this object by a focused electron beam, installation in which the irradiation means comprise the electron gun according to claim 13.

Claim 24 (new): Installation for electronic sterilisation of objects, particularly packaging components, this installation comprising means of irradiating these objects by a focused electron beam, installation in which the irradiation means comprise the electron gun according to claim 13.